

REMARKS

Claims 1-25 are pending in this application. Claim 15 has been allowed in the referenced Office Action. New Claims 26, 27 and 28, dependent on allowed Claim 15, have been added to more clearly define the invention. These new claims should be allowed for the reasons Claim 15 was allowed.

The drawings stand objected to for failure to comply with 37 CFR 1.84(p)(5). A proposed change to the specification to correct this discrepancy is provided above for the Examiner's approval by using the same reference numeral (96) for the cavity and the trough. Also, the specification has been amended to delete the reference to the trademark and instead the generic term has been substituted.

The Examiner objects to Claims 1-15 and 21-25 for informalities based on the language relating to ink being deposited on the substrate yet accumulating beneath the substrate. The Examiner's query here is understandable, but readily explained by the fact that the substrate may comprise a web with small (0.01-0.25 inches) holes or perforations extending through it (see page 5, lines 4-8). Therefore, ink can fall through the holes in the web and build up beneath the web and cause smearing (see page 2, lines 1-6). This is a factor (inter alia) which patentably differentiates the present invention over the prior art which generally involves solid substrates such as standard paper sheets etc. which do not have to contend with this smearing problem.

Independent Claims 1, 16 and 21 have been amended to recite that the substrate has openings or holes through which the ink may form beneath the substrate. Therefore, it is believed the foregoing objection to the claims has been obviated.

Claims 5 and 8 stand objected to as in improper dependent form. These claims have been amended to place them in proper form.

Claims 1, 2, 5 and 12 stand rejected as anticipated by Sugimoto's printing system. Independent Claim 1 has been amended to recite that the substrate has "openings". Ink can flow through these openings and accumulate underneath the substrate to cause smearing. Sugimoto's substrate or recording medium is either plain paper or OHP film neither of which, according to Sugimoto, is alleged to contain openings through which ink will flow. Anticipation requires a finding that each and every element of a claim can be found in the alleged anticipatory art. Such

is not the case here; accordingly, reconsideration of the rejection based on Sugimoto is respectfully requested.

Claims 16-19 are rejected as anticipated by Rhodes. Independent Claim 16 has been amended to recite that the “substrate” upon which the ink is deposited has openings extending “transverse a longitudinal axis of the substrate”. No such openings are found in the paper sheet of the Rhodes reference. For the reasons given above, reconsideration of the rejection based on Rhodes is requested.

Claims 21-22 stand rejected as anticipated by Akaha. Akaha like the other alleged anticipatory references uses paper as the recording medium. No suggestion that the paper medium has openings or perforations through which ink may flow is found in the Akaha reference, therefore, for the reasons given supra, reconsideration of this rejection is requested.

Claims 3-4 stand rejected as unpatentable under Section 103(a). This is an obviousness rejection based on combining Sugimoto with Moore, et al. However, since Sugimoto fails to teach that the substrate has openings as in the base Claim 1, the proposed combination fails to render the dependent Claims 3-4 obvious.

Claims 6 is rejected in view of the alleged obvious combination of Sugimoto and Wotton. This combination fails for the reasons given above with respect to Sugimoto, since Sugimoto does not disclose a substrate with openings as set forth in base Claim 1. Apart from the fact that the combination would not anticipate, there also lacks motivation in either reference to combine their respective teachings, since without openings in the substrate no ink passes the substrate through to smear the substrate and, therefore, the use of the additional heaters of Wotton would not be warranted.

Claims 7-9 are rejected based on Sugimoto in view of Erickson’s curved section. For the reasons given as stated above, this ground for rejection fails, inter alia, due to the absence of any teaching of a perforated substrate as in base Claim 1.

Claim 7 is rejected as unpatentable over Sugimoto in view of Koyama. Claim 7 is dependent on base Claim 1. For the reasons given above, Claim 1 is not anticipated by Sugimoto and, therefore, the combination of Sugimoto and Koyama fails to render Claim 7 unpatentable.

Claims 10-11 and Claims 13-14 and Claim 20 stand rejected as unpatentable over Sugimoto in combination with various references, i.e., respectively Spehrley; Akaha; and Morita. With respect to Claims 10-11 and 13-14 which are dependent on amended Claim 1, for the reasons given above supra, with respect to Sugimoto, it is our considered opinion that these combinations still do not render the present claims unpatentable. As for method Claim 20, which is now dependent on amended Claim 16, the reasons given above supra provide sufficient basis for distinguishing over the main reference to Sugimoto, and reconsideration of this ground for rejection of Claim 20 is requested.

Claim 24 stands rejected as unpatentable over Akaha in view of Shida. Claim 24 is dependent on method Claim 21 which has been amended to recite that a gap is formed in the printing section of the printing system to "minimize ink which is deposited on the substrate from accumulating through . . . openings in the substrate and forming underneath the substrate." Since neither Akaha nor Shida disclose such openings, there is no motivation in either reference alone or combined to provide a gap in the printing section to collect non-existing ink accumulations. For the reasons given above, reconsideration of this ground for rejection is requested.

Claims 24 and 23-25 which are also dependent on amended Claim 21 stand rejected based on the respective combinations of Akaha and Shida or Akaha and Szlucha. For the reasons given above with respect to Akaha, reconsideration of this ground for rejection is respectfully requested .

Information Disclosure Statement

An Information Disclosure Statement (IDS) is being filed concurrently herewith. Entry of the IDS is respectfully requested.

CONCLUSION

Applicants have carefully considered the Examiners reasons for rejection and the prior art cited, and has amended the claims where appropriate to avoid such art. Applicants respectfully request that the pending claims be allowed and the case be passed to issuance. The Examiner's allowance of Claim 15, and the reasons therefor, is noted with appreciation. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned at (978) 341-0036.

Respectfully submitted,

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